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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,441

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Michihiro Ota

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EXAMINER

OBEID, MAMON A

ART UNIT

PAPER NUMBER

3621

MAIL DATE

DELIVERY MODE

10/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,441

Applicant(s)

OTA, MICHIIRO

Examiner

Mamon Obeid

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. This is in reply to Applicant's Amendment filed on 30 August 2007.
2. Claims 1-18 have been canceled.
3. Claims 19-28 have been added.
4. Claims 19-28 are currently pending and have been examined.

Restrictions

5. Restriction to one of the following inventions is required under 35 U.S.C 121:
 - I. Claims 19, drawn to a system, classified in class 705, subclass 69.
 - II. Claims 20-23, drawn to a method, classified in class 705, subclass 75.
6. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case group II is dependent upon group I. A restriction is improper at this time. However, should applicant amend any claims such that group II is no longer dependent on group I, this restriction will be implemented.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 19-23 are rejected under 35 U.S.C. 101 because the claims are directed to neither a "process" or a "machine" but rather embrace or overlap two different statutory classes of invention set forth in 35 U.S.C 101 which is drafted so as to set the statutory classes of invention in the alternative only; see MPEP 2173.05(p). For examination purposes, the examiner will interpret claims 19-23 as claims directed to a method only.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

10. Claims 19-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claim 19, which claims both an apparatus and the method steps of using the apparatus, is indefinite; see MPEP 2173.05(p). For examination purposes, the examiner will interpret claim 19 as claim directed to a method only.
12. The term "*predetermined sales processing*" in claim 24 is a relative term, which renders the claim indefinite. The term "*predetermined sales processing*" is not defined by the claim, the specification does not lexicographically define the term, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. If Applicant believes that the term "*predetermined sales processing*" is old and well known in the art, Applicant should expressly state on the record that the claim term is old and well known in the art and provide appropriate evidence in support thereof (e.g. a U.S. Patent). For examination purposes, the examiner will interpret the term "*predetermined sales processing*" as a general sales processing.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 19-28 are rejected under U.S.C 103 (a) as being unpatentable by Park et al, U.S. Patent Application Publication No. 2002/0194137 A1 in view of Haynes III et al., U.S. Patent No. 6,161, 181.
15. **Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.
16. **As per claim 19 & 24:** Park discloses the following limitations:
 - *an issuing device* (see at least paragraph [0136], Figure 3 and related text) ;
 - *a mobile communication terminal* (see at least paragraph [0136], Figure 3 and related text);
 - *a sales processing device* (see at least paragraph [0136], Figure 3 and related text);
 - *a settlement device* (see at least paragraph [0005], Figure 2 and related text);

- *wherein the issuing device comprises: a first generating means for encrypting the card information with a first key to generate first information (see at least paragraph [0052];*
- *a second generating means for encrypting the first information generated by the first generating means with a second key to generate second information (see at least paragraph [0052]); and*
- *an encryption means for encrypting the first information separated by the separating means with the second key (see at least paragraph [0052];*
- *a sales performing means for performing predetermined sales processing based on the card issuing information when the card information is determined to be valid by the determination means (see at least paragraph [0287]);*
- *determination means for comparing the second information separated by the separating means with the first information encrypted by the encryption means, and determining that the card information included in the card issuing information is valid when the second information separated by the separating means coincides with the information encrypted by the encryption means (see at least paragraph [0271]);*

Park also discloses repeated card information encryption (see at least paragraphs [0184] and [0188]), but does not explicitly disclose *an issuing means for issuing a third information including the first information and the second*

information as the card issuing information; wherein the sales processing device comprises: a separating means for separating the first information and the second information from the third information received from the mobile communication terminal. However, Haynes, III et al., discloses means for packaging encrypted, double encrypted and/or digitally signed information (see at least Figure 7 and related text). Haynes also discloses separating means for separating two pieces of information in a package or envelope (see at least column 10, lines 45- 61 and Figure 4A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park's teachings to include information that is encrypted in multiple stages and/ or includes digital signatures; wherein this information is to be synthesized or packaged together to form one common file, package or envelope to enhance privacy (see in Haynes column 12, lines 54-62).

- 17. As per claims 20 & 25:** Park, in addition to the limitations of the independent claims shown above, discloses repeated card information encryption (see at least paragraphs [0184] and [0188]), but does not disclose *wherein the third information is information which is prepared by encrypting with a third key a synthetic signal obtained by synthesizing the first information and the second information, and the separating means separates the first information and the*

second information after decrypting the third information with the third key.

However, Haynes, III et al., discloses means for packaging encrypted, double encrypted and/or digitally signed information (see at least Figure 7 and related text). Haynes also discloses separating means for separating two pieces of information in a package or envelope (see at least column 10, lines 45- 61 and Figure 4A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park's teachings to include information that is encrypted in multiple stages and/ or includes digital signatures; wherein this information is to be synthesized or packaged together to form one common file, package or envelope to enhance privacy (see in Haynes column 12, lines 54- 62).

18. **As per claims 21 & 26:** Park discloses *wherein the second key is generated by using a password managed in confidence between the issuing device and the sales processing device or at least a part of the card information* (see at least paragraph [0271] and Figure 66).
19. **As per claims 22 & 27:** Park discloses *wherein the sales processing device is an automatic vending machine, which comprises sales permitting means for permitting the sales transaction using the card issuing information when the card*

*information is determined to be valid by the determination means; and
storing and accumulating means for storing and accumulating sales price
information related to the sales transaction together with the first information
when the sales transaction permitted by the sales permitting means is executed
(see at least paragraph [0223]).*

20. As per claims 23 & 28: Park discloses the following limitations:

- *collecting means for collecting the first information accumulated in the sales processing device and the sales price information; decryption means for decrypting the first information collected by the collecting means with the first key to obtain the card information (an optical settlement operation wherein credit information is transmitted to the card company and wherein the card company performs a decryption process corresponding to the repeated encryption process (see at least paragraph [0196])).*
- *settlement means for performing settlement processing on the sales price information based on the card information decrypted by the decryption means (a sale particulars settlement process wherein the sale particulars are recorded and stored (see at least paragraph [0223])).*

Response to Arguments

21. Applicant's arguments with respect to claims 19 and 24 have been considered but are moot in view of the new ground(s) of rejection.
22. In response to applicant's argument that *The Park et al.* reference fails to disclose that this technique includes any of the claimed features including, for example, "separating" the received credit information, "encrypting" the received credit information, "comparing" encrypted and separated credit information with separated credit information or validating the received credit information in a sales processing device, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Separating, encrypting, comparing and validating credit card information is old and well known in the art. Furthermore, double or multiple layers of encryption is also old and well know in the art for protecting confidential information and increasing secrecy. That is by encrypting credit card information twice with some block cipher, either with the same key or by using different keys, the resultant encryption becomes stronger in all circumstances. And by using three encryptions, we would expect to achieve a yet greater level of security.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mamon Obeid whose telephone number is (571) 270-1813. The examiner can normally be reached on 5-4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mamon Obeid
Examiner

Art Unit: 3621

Date: September

Signature: 

 9/21/07

ANDREW J. FISCHER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600